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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Thomas Sauter

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT

PAPER NUMBER

3683

MAIL DATE

DELIVERY MODE

04/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/517,554	Applicant(s) SAUTER, THOMAS	
	Examiner Thomas J. Williams	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11,12,14-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 16 is/are allowed.
- 6) ☒ Claim(s) 11,12,14,17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/22/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgment is made in the receipt of the amendment and information disclosure statement filed January 22, 2008.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11, 12, 14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,681,168 to Polzin in view of US 6,554,744 to Schmidt.

Re-claim 11, Polzin teaches a method of regulating brakes in a vehicle, comprising: identifying the vehicle is driving off on a roadway having a first portion with a higher coefficient (i.e. the road surface associated with wheel 12) than a second portion (associated with wheel 11, see figure 2); increasing the brake pressure on a driven wheel 12 on the portion of the roadway having the higher coefficient of friction (see figure 3, note P_{High} rises after t_1); decreasing the brake pressure on the driven wheel 12 on the portion of the roadway having the higher coefficient of friction, subsequent to the increasing function (P_{High} decreases after T_2). However, Polzin fails to teach a degree of decreasing the brake pressure as function of the degree of inclination of the roadway.

Schmidt teaches a driving off operation for a vehicle, wherein the degree of decreasing the brake pressure is controlled as a function of specific parameters, such as vehicle inclination (see column 6 lines 42-54 and lines 62-66 to column 7 lines 1-6). This ensures a steady driving

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off of the vehicle from a stopped condition, irrespective of the roadway inclination. It would have been obvious to one of ordinary skill in the art when having reduced the brake pressure of Polzin to have done so as a function of the roadway inclination as taught by Schmidt, thereby ensuring a continuous forward motion of the vehicle, irrespective of the roadway inclination.

Re-claims 12 and 17, the brake pressure is increased by a constant value, see F2.

Re-claims 14 and 19, Polzin teaches a method and device for regulating brakes of a vehicle, comprising: identifying or recognizing (such as the controller associated with the traction control device) the vehicle is driving off on a roadway having a first portion with a higher coefficient (wheel 12) than a second portion (wheel 11); a brake pressure increasing unit (traction control device) for increasing the brake pressure on a driven wheel 12 on the portion of the roadway having the higher coefficient of friction (see figure 3, note P_{High} rises after t_1); decreasing the brake pressure on the driven wheel 12 on the portion of the roadway having the higher coefficient of friction, subsequent to the increasing function (P_{High} decreases after T_2), a rolling back of the vehicle on an incline is prevented, as such a roadway incline is taken into consideration. However, Polzin fails to teach a time interval taken into consideration, wherein decreasing the brake pressure is a function of the determined time interval.

Schmidt teaches a vehicle driving off operation, wherein a reduction in brake pressure is controlled as a function of driving style, interpreted as speed of accelerator pedal actuation. The speed of actuation defines a time interval since ΔS is constant (see figure 1). It would have been obvious to one of ordinary skill in the art when having reduced the braking pressure in Polzin to do so as a function of a time interval as taught by Schmidt, thereby providing a smooth driving off action for the vehicle.

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4. Claims 11, 12, 14, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,322,356 to Kolbe et al. in view of Schmidt.

Re-claim 11, Kolbe et al. teach a method of regulating brakes in a vehicle, comprising: identifying the vehicle is driving off on a roadway having a first portion with a higher coefficient (the right front wheel) than a second portion (the left front wheel); increasing the brake pressure on a driven wheel (right front wheel) on the portion of the roadway having the higher coefficient of friction (see figures 1 and 3, note the rise in P_R); decreasing the brake pressure on the driven wheel (right front wheel) on the portion of the roadway having the higher coefficient of friction, subsequent to the increasing function (note the decrease in P_R). However, Kolbe et al. fail to teach a degree of decreasing the brake pressure as function of the degree of inclination of the roadway.

Schmidt teaches a driving off operation for a vehicle, wherein the degree of decreasing the brake pressure is controlled as a function of specific parameters, such as vehicle inclination (see column 6 lines 42-54 and lines 62-66 to column 7 lines 1-6). This ensures a steady driving off of the vehicle from a stopped condition, irrespective of the roadway inclination. It would have been obvious to one of ordinary skill in the art when having reduced the brake pressure of Kolbe et al. to have done so as a function of the roadway inclination as taught by Schmidt, thereby ensuring a continuous forward motion of the vehicle, irrespective of the roadway inclination.

Re-claims 12 and 17, the brake pressure is increased by a constant value, see figure 1 noting the constant rise in brake pressure.

Re-claims 14 and 19, Kolbe et al. teach a method and device for regulating brakes of a vehicle, comprising: identifying or recognizing the vehicle is driving off on a roadway having a first portion with a higher coefficient (right front wheel) than a second portion (left front wheel); a brake pressure increasing unit (traction control device) for increasing the brake pressure on a driven wheel (right front wheel) on the portion of the roadway having the higher coefficient of friction (see figures 1 and 3, note the rise in P_R); decreasing the brake pressure on the driven wheel (right front wheel) on the portion of the roadway having the higher coefficient of friction, subsequent to the increasing function (see the decrease in brake P_R). However, Kolbe et al. fails to teach whether the vehicle is on an incline or a time interval is taken into consideration, and wherein decreasing the brake pressure is a function of the determined time interval.

Schmidt teaches a vehicle driving off operation, wherein a reduction in brake pressure is controlled as a function of roadway inclination and driving style, interpreted as speed of accelerator pedal actuation. The speed of actuation defines a time interval since ΔS is constant (see figure 1). It would have been obvious to one of ordinary skill in the art when having reduced the braking pressure in Kolbe et al. to do so as a function of roadway inclination and a time interval as taught by Schmidt, thereby providing a smooth driving off action for the vehicle.

Allowable Subject Matter

5. Claims 15 and 16 are allowed.

Response to Arguments

6. Applicant's arguments with respect to claims 11, 12, 14, 17 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Polzin, Pueschel and Trefzer et al. each teach a traction control drive wheels on split-mu surfaces. Tsukamoto et al. teach a brake control system, wherein the brake pressure reduction is controlled as a function of road inclination.

8. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128. The examiner can normally be reached on Wednesday-Friday from 6:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached at 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

/Thomas J. Williams/
Primary Examiner, Art Unit 3683

April 9, 2008